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THE CRUISE OF THE "PETREL"

BY HERBERT N. LOWE

It has been said that the unexpected things in life are often the most enjoyable. Such was the case November, 1931, when I had the opportunity of joining a scientific expedition to the islands of the Gulf of California.

Our party numbered six including the Captain who presided over engine room and galley. There were the owner of the yacht who collected reptiles, the ornithologist, the mammalogist, the carcinologist and the conchologist.

The "Petrel," sturdy sixty-five foot yacht equipped with a seventy-five horsepower Diesel engine and Delco for lights and power for refrigeration, was roomy and well fitted for an expedition of this nature.

We carried four dredges of various sizes, two tangles, and many fathoms of rope. All of this equipment with the exception of one tangle was lost before the end of the trip. In spite of all this we did some quite good dredging in water from five to twenty fathoms in depth.

We left our home port on the day before Thanksgiving, keeping close to the shore-line on our southerly course. As the night came on we passed in review the lights of all the small towns from Laguna south. At midnight we were off Point Loma, and early next morning we were at anchor off the Mexican port of Ensenada where we took out our clearance papers.

Our Thanksgiving dinner was eaten in foreign waters in the shelter of the Todos Santos islands. As we proceeded south the weather gradually became warmer. We passed

tiny San Geronimo Island, lava-covered San Martin Island with its extinct crater, lofty Cedros Island with its cedar crowned heights hidden in the clouds, flat Natividad Island, and on Sunday morning dropped anchor in Santa Maria Bay. We made a few hauls with the dredge with good results, and all went ashore at noon to ply their various vocations. The low tide yielded quite a good assortment of molluscan life.

At three o'clock the next afternoon we entered the port of Magdalena Bay and anchored for the night off the old whaling station at Belcher's Point. Owing to a recent rain the *Micrarionta areolata* Sby. were crawling over the desert vegetation, as they were also doing on our second stop on the east side of the bay. These were much smaller and higher than the colony at Belcher's Point.

At our stop on the southeast side of Margarita Island our first *Bulimulus hannai* Pils. were encountered in the rock slides high up on the north slopes. At this anchorage we took some gorgeous lemon-colored sea fans in about ten feet of water. On these we found some half grown *Pteria sterna* Gld. and a small yellow crustacean exactly the same color as the sea fans.

Because of the indifferent tides encountered during our week at Magdalena Bay, the marine collecting was very poor. This seems to be the headquarters for *Conus fergusonii* Sby. Dead battered specimens were on the beaches by the hundred but not a single perfect one. We did not take this shell at any place in the Gulf. As we rounded Cape San Lucas, the extreme point of the peninsula, we decided to spend the entire day in this fisherman's paradise. Sail fish and sword fish were seen but not taken, also many kinds of shark, dolphin, and great schools of porpoise. Of the many edible varieties we preferred Jordan's Cabrillo which is certainly a toothsome morsel when properly baked.

We headed the "Petrel" on up the Gulf and put into "Ensenada de los Muertos" for the afternoon tide. Among the sand dunes near the beach we saw nine mounds each marked with a rude weather-beaten cross marking the last resting place of some unfortunate seafarers. I suppose this

was the cause of the gruesome name of the place. A recent south-east storm or "chubasco" had torn off the outer end of the pier of the San Antonio Mining Company and strewn the piling along the beach for some distance. On these piles we found many *Chama*, *Vermetus*, and great oysters. Some of these were almost circular and nearly a foot in diameter. Among the sand hills back from the coast were many bleached shells of *Bulimulus sufflatus* Gld.; after much arduous labor a few live ones were found aestivating, buried under the dead leaves of the yucca and other desert vegetation. Continuing on up the coast we passed the west coast of Ceralbo Island and anchored in the delightful land-locked cove at the north end of Espiritu Santo Island lying just outside La Paz Bay.

In this charmed spot we passed two of the most productive days on the entire trip. The afternoon tides were extremely low. On our left for half a mile were scattered large coral heads which were gradually visible as the tide ran out. By breaking up these bunches of coral I was able to take my first living *Lima tetrica* Gld., a beautiful species much resembling the large ones from Florida. On my three previous trips to Mexico I had taken only a few odd valves, and this proved to be the only place I found that lovely species on the present expedition. Another interesting inhabitant of the coral heads was the tectibranch *Dolabella californica* Stearns, which exudes, on being disturbed, a purple liquid much like that of our *Aplysia*. These same tectibranchs were subsequently found thrown up by a recent storm on San José Island and Carmen Island in company with a multitude of star-fish.

Many fine large *Pinna tuberculosa* Sby. and *P. rugosa* Sby. were taken buried in the sand among the coral heads. In the sand bars at the head of the bay we gathered a large sack of *Macrocallista squalida* Sby. which made excellent chowder and cocktails.

I took my first live *Oliva porphyria* L. here under about three inches of sand; and believe me it is some thrill to dig these beauties from the sand. Thrill number three was a fine

live *Pitar pollicaris* Cpr. as large as the one in the collection of the Academy of Natural Sciences in Philadelphia. This seems to be one of the rarest of the Mexican bivalves. *Venus vulnerata* Brod., *Terebra*, *Polynices*, and *Olivella* were also plowing up these same sand bars which were exposed a quarter of a mile from shore at the extreme low tide.

(To be continued)

OBSERVATIONS ON MONTACUTA PERCOMPRESSA DALL

BY GEORGE M. GRAY

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On August 25th of this year (1932) Mr. F. W. Wamsley, our veteran collector and preparator, brought to me four *Synapta inhaerens* (the sand holothurian), wanting me to look at the small molluscs which were attached to them—one to each *Synapta*.

He said that this was not the first time he had found these molluscs on the *Synapta* when digging for the latter. He and others had been out that morning digging *Synapta* for use at the Laboratory and these four were the only ones he noticed having the molluscs on them. I was delighted to get them. They proved to be *Montacuta percompressa* Dall.¹ As the *Synapta* were needed for other work I carefully removed each mollusc from its host and was surprised at the tenacity with which they stuck to the *Synapta*. By taking the mollusc with forceps or finger and thumb and gently lifting to separate it from the *Synapta*, I have sometimes raised the latter free from the water before the mollusc let go, so strongly was it fastened to its host, and one crushed in the forceps before removal. I kept them over night in a small dish of water. I had another dish with one or two *Tellina* in it and the next morning, thinking I would consolidate, I put the *Tellina* in with the *Montacuta*. Shortly after I noticed eggs

¹ This identification was confirmed by Dr. Pilsbry and Mr. Vanatta.